

Application No. 09/539,210
Response to Final Office Action

Customer No. 01933

Listing of Claims:

1. (Currently Amended) A drive control method for a
photosensor array including a plurality of rows, each having a
plurality of photosensors arranged to form a matrix, the method
comprising a driving sequence which includes:
- 5 applying a reset pulse to a predetermined row of the
photosensor array to initialize the plurality of photosensors in
the row;
- accumulating charges generated by light irradiation during a
charge accumulation period;
- 10 applying a predetermined pre-charge pulse to the plurality
of photosensors during a pre-charge operation; and
- applying a read pulse to the plurality of photosensors of
the row after completion of the initialization, after the charge
accumulating period, and after the pre-charge operation, to
- 15 output a voltage generated by the charges accumulated during the
charge accumulating period as an output voltage;
- wherein timings of applying the reset pulse, the pre-charge
pulse and the read pulse to each row are set not to overlap in
time with each other,
- 20 wherein the charge accumulating periods for the rows are set
to have a period equal to one of: (i) a sum of a read pulse
interval for each row and a pulse width of the pre-charge pulse,

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25 ~~and (ii) a sum of an integer multiple of a read pulse interval
and the pulse width of the pre-charge pulse an application time
and an integer multiple of the application time of the read pulse
for each row, and~~

wherein the charge accumulating periods have an overlapping
period between at least two different rows.

2. (Previously Presented) The drive control method for a
photosensor system according to claim 1, wherein the reset pulses
are successively applied to the rows of the photosensor array to
successively initialize the plurality of photosensors, and

5 wherein the read pulses are successively applied to the
plurality of photosensors after the initialization, after the
charge accumulating period and after completion of the pre-charge
operation, to output successively the voltages generated by the
charges accumulated during the charge accumulating period as the
10 output voltages.

3. (Previously Presented) The drive control method for a
photosensor system according to claim 2, wherein an application
period of the pre-charge pulse and the read pulse for each row is
equal to or longer than a sum of a pulse width of the pre-charge
pulse and a pulse width of the read pulse.

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4. (Previously Presented) The drive control method for a
photosensor system according to claim 2, wherein an application
period of the reset pulse for each row and an application period
of the pre-charge pulse and the read pulse for each row are equal
5 to or longer than a sum of a pulse width of the pre-charge pulse
and a pulse width of the read pulse.

5. (Previously Presented) The drive control method for a
photosensor system according to claim 2, wherein an application
period of the reset pulse for each row and an application period
of the pre-charge pulse and the read pulse for each row are equal
5 to or longer than a sum of a pulse width of the reset pulse, a
pulse width of the pre-charge pulse and a pulse width of the read
pulse.

Claim 6 (Canceled).

7. (Previously Presented) The drive control method for a
photosensor system according to claim 1, wherein each of the
photosensors comprises a source electrode and a drain electrode
arranged with a channel region comprising a semiconductor layer
5 interposed therebetween, and a first electrode and a second
electrode formed at least above and below the channel region with
insulating layers interposed therebetween, and wherein the

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charges are generated and accumulated in an amount corresponding to an amount of light irradiating the channel region.

8. (Previously Presented) The drive control method for a photosensor system according to claim 7, wherein the reset pulse is applied to the first electrode of the photosensor to initialize the photosensor; and

5 the pre-charge pulse is applied to the drain electrode of the photosensor, and the read pulse is applied to the second electrode of the photosensor after completion of the pre-charge operation to output a voltage of the drain electrode as the output voltage.

9. (Previously Presented) The drive control method for a photosensor system according to claim 1, wherein an application period of the pre-charge pulse for each row and the read pulse is equal to or an integer number times as long as a sum of a pulse width of the pre-charge pulse and a pulse width of the read pulse.

10. (Previously Presented) The drive control method for a photosensor system according to claim 9, wherein the charge accumulating periods for the rows are equal to or an integer

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number times as long as said sum and are set different from each
5 other depending on the rows.

11. (Previously Presented) The drive control method for a
photosensor system according to claim 9, wherein the reset pulses
are simultaneously applied to the rows of the photosensor array,
the pre-charge pulses are applied at the time interval equal to
5 or an integer number times as long as said sum, and the read
pulses are applied to each row, and wherein the charge
accumulating period for each row is set to a different time.

12. (Previously Presented) The drive control method for a
photosensor system according to claim 9, wherein the reset pulses
are applied to each row of the photosensor array at the time
interval equal to or an integer number times as long as said sum
5 and, after completion of the reset pulse application to all the
rows, the pre-charge pulses are applied and the read pulses are
applied to each row in an order opposite to an order of applying
the reset pulses to each row of the photosensor array.

13. (Previously Presented) The drive control method for a
photosensor system according to claim 9, wherein the reset pulses
are successively applied to each row of the photosensor array at

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the time interval equal to or an integer number times as long as

5 said sum;

wherein the pre-charge pulses are applied in synchronism
with the application of the reset charges, and the read pulses
are applied to each row in an order opposite to an order of
applying the reset pulses to each row of the photosensor array;

10 and

wherein after completion of a pre-charge voltage application
and the read pulse application, and after a lapse of time equal
to said sum, the pre-charge pulses are applied and the read pulse
is applied again to each row in an order equal to the order of
15 applying the read pulse to each row at the time interval equal to
or an integer number times as long as said sum.